



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Geoff Downton

Serial No.: 10/604208

Filed: July 1, 2003

For: Control Method for use with a Steerable
Drilling System

Group Art Unit: 3672

Examiner: Smith, Matthew J.

Atty. Dkt. No.: 92.1004-CIP

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
PO Box 1450
Alexandria VA 22313-1450

Sir:

CERTIFICATE OF MAILING

I hereby certify that this correspondence (along with any document referenced as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, PO Box 1450, Alexandria VA 22313-1450.

Pam Rahmatdoss
Pam Rahmatdoss

1/24/2006
1/24/2006
Date

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record.

In accordance with 37 C.F.R. §§ 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

This application is a continuation in part of Serial No.09/869686, filed October 9, 2001, and is relied upon for an earlier filing date under 35 U.S.C. § 120. In accordance with Rule 37 C.F.R. § 1.98(d) copies of documents that were previously submitted to the Patent and Trademark Office in prior application Serial No.09/869686 are not enclosed.

Applicants respectfully request the listed documents be made of record in the present case.

Schlumberger Technology Corporation
Sugar Land Product Center
Intellectual Property Law and Contracts
200 Gillingham Lane
Sugar Land TX 77478

(281) 285-8809

(281) 285-8821 Fax

Date

1/23/06

Respectfully submitted,

Jennie L. Salazar

Reg. No. 45065

Attorney for Assignee

Please type a plus sign (+) inside this box

JAN 30 2006

PTO/SB/08A (08-00)

Approved to use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no burdens are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 14

Complete if Known

Application Number	09/869,686
Filing Date	7/3/2001
First Named Inventor	Geoff Downton
Group Art Unit	
Examiner Name	
Attorney Docket Number	92.1004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	712,887			Wyczynski	11/04/1902	
	1,971,480			Earley	08/28/1934	
	2,319,236			Isaacks	05/18/1943	
	2,345,766			Miller	04/04/1944	
	2,585,207			Zublin	02/12/1952	
	2,687,282			Sanders	08/24/1954	
	2,694,549			James	11/16/1954	
	2,857,141			Carpenter	10/21/1958	
	2,876,992			Lindsay	03/10/1959	
	3,051,255			Deely	08/28/1962	
	3,062,303			Schultz	11/06/1962	
	3,068,946			Frisby et al	12/18/1962	
	3,092,188			Farris	06/04/1963	
	3,098,534			Carr et al	07/23/1963	
	3,104,726			Davis	09/24/1963	
	2,712,434			Giles et al	07/05/1955	
	3,123,162			Rowley	03/03/1964	
	3,129,776			Mann	04/21/1964	
	3,225,843			Ortloff et al	12/28/1965	
	3,305,771			Arps	02/21/1967	

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not
use. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.
¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Please type a 'plus sign (+) inside this box

PTO/SB/08A (08-00)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>Substitute for form 1449A/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p><i>(use as many sheets as necessary)</i></p> <p>Sheet 2 of 14</p>				<p>Complete if Known</p> <table border="1"> <tr> <td>Application Number</td> <td>09/869,686</td> </tr> <tr> <td>Filing Date</td> <td>7/3/2001</td> </tr> <tr> <td>First Named Inventor</td> <td>Geoff Downton</td> </tr> <tr> <td>Group Art Unit</td> <td></td> </tr> <tr> <td>Examiner Name</td> <td></td> </tr> <tr> <td>Attorney Docket Number</td> <td>92.1004</td> </tr> </table>		Application Number	09/869,686	Filing Date	7/3/2001	First Named Inventor	Geoff Downton	Group Art Unit		Examiner Name		Attorney Docket Number	92.1004
Application Number	09/869,686																
Filing Date	7/3/2001																
First Named Inventor	Geoff Downton																
Group Art Unit																	
Examiner Name																	
Attorney Docket Number	92.1004																

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.*	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code* (if known)			
		3,309,656		Godbey	03/14/1967	
		3,370,657		Antle	02/27/1968	
		3,457,999		Massey	07/29/1969	
		3,512,592		Kellner	05/19/1970	
		3,561,549		Garrison et al	02/09/1971	
		3,575,247		Feeenstra	04/20/1971	
		3,637,032		Jeter	01/25/1972	
		3,667,556		Henderson	06/06/1972	
		3,743,034		Bradley	07/03/1973	
		3,799,279		Farris	03/26/1974	
		3,878,903		Chernington	04/22/1975	
		3,888,319		Bourne Jr et al	06/10/1975	
		3,903,974		Cullen	09/09/1975	
		3,974,886		Blake Jr	08/17/1976	
		3,997,008		Kellner	12/14/1976	
		4,022,287		Lundstrom et al	05/10/1977	
		4,027,301		Mayer	05/31/1977	
		4,040,494		Kellner	08/09/1977	
		4,040,495		Kellner et al	08/09/1977	
		4,076,084		Tighe	02/28/1978	

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered
-------------------------------	--	----------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	09/869,686
(use as many sheets as necessary)				Filing Date	7/3/2001
				First Named Inventor	Geoff Downton
				Group Art Unit	
				Examiner Name	
Sheet	3	of	14	Attorney Docket Number	92.1004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	4,080,115			Sims et al	03/21/1978	
	4,152,545			Gilbreath Jr et al	05/01/1979	
	4,184,553			Jones Jr et al	01/22/1980	
	4,185,704			Nixon Jr.	01/29/1980	
	4,190,123			Roddy	02/26/1980	
	4,211,292			Evans	07/08/1980	
	4,220,213			Green et al	12/30/1980	
	4,270,619			Base	06/02/1981	
	4,291,773			Evans	09/29/1981	
	4,305,474			Farris et al	12/15/1981	
	4,351,037			Scherbatskoy	09/21/1982	
	4,357,634			Chung	11/02/1982	
	4,388,974			Jones Jr et al	06/21/1983	
	4,394,881			Shirley	07/26/1983	
	4,407,377			Russell	10/04/1983	
	4,416,339			Baker et al	11/22/1983	
	4,428,441			DeLlinger	01/31/1984	
	4,449,595			Holbert	05/22/1984	
	4,456,080			Holbert	06/26/1984	
	4,461,359			Jones Jr et al	07/24/1984	

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.
1 Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>Substitute for form 1449A/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p><i>(use as many sheets as necessary)</i></p>				<p>Complete if Known</p>	
				Application Number	09/869,686
				Filing Date	7/3/2001
				First Named Inventor	Geoff Downton
				Group Art Unit	
				Examiner Name	
Sheet	4	of	14	Attorney Docket Number	92.1004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code* (if known)			
		4,465,147		Feenstra	08/14/1984	
		4,491,187		Russell	01/01/1985	
		4,492,276		Kamp	01/08/1985	
		4,515,225		Dalley	05/07/1985	
		4,523,652		Schuh	06/18/1985	
		4,560,013		Beimgraben	12/24/1985	
		4,572,305		Swietlik	02/25/1986	
		4,577,701		Dellinger et al	03/25/1986	
		4,635,736		Shirley	01/13/1987	
		4,637,479		Lelsing	01/20/1987	
		4,638,873		Welborn	01/27/1987	
		4,655,289		Schoeffler	04/07/1987	
		4,662,458		Ho	05/05/1987	
		4,667,751		Geczy et al	05/26/1987	
		4,683,956		Russell	08/04/1987	
		4,690,229		Raney	09/01/1987	
		4,697,651		Dellinger	10/06/1987	
		4,699,224		Burton	10/13/1987	
		4,714,118		Baker et al	12/22/1987	
		4,732,223		Schoeffler et al	03/22/1988	

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered
-----------------------	--	--------------------

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	09/869,686
				Filing Date	7/3/2001
				First Named Inventor	Geoff Downton
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	92.1004
Sheet	5	of	14		

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	4,739,843			Burton	04/26/1988	
	4,763,258			Engelder	08/09/1988	
	4,787,093			Rorden	11/22/1988	
	4,807,708			Forrest et al	02/28/1989	
	4,811,798			Falgout Sr et al	03/14/1989	
	4,821,815			Baker et al	04/18/1989	
	4,821,817			Cendre et al	04/18/1989	
	4,836,301			Van Dongen et al	06/06/1989	
	4,842,083			Raney	06/27/1989	
	4,844,178			Cendre et al	07/04/1989	
	4,848,488			Cendre et al	07/18/1989	
	4,848,490			Anderson	07/18/1989	
	4,854,397			Warren et al	08/08/1989	
	4,854,403			Ostertag et al	08/08/1989	
	4,858,705			Thilery	08/22/1989	
	4,867,255			Baker et al	09/19/1989	
	4,880,067			Jelsma	11/14/1989	
	4,886,130			Evans	12/12/1989	
	4,895,214			Schoeffler	01/23/1990	
	4,901,804			Thometz et al	02/20/1990	

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>Substitute for form 1449A/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p><i>(use as many sheets as necessary)</i></p>				<p>Complete if Known</p> <table border="1"> <tr> <td>Application Number</td> <td>09/869,686</td> </tr> <tr> <td>Filing Date</td> <td>7/3/2001</td> </tr> <tr> <td>First Named Inventor</td> <td>Geoff Downton</td> </tr> <tr> <td>Group Art Unit</td> <td></td> </tr> <tr> <td>Examiner Name</td> <td></td> </tr> <tr> <td>Attorney Docket Number</td> <td>92.1004</td> </tr> </table>		Application Number	09/869,686	Filing Date	7/3/2001	First Named Inventor	Geoff Downton	Group Art Unit		Examiner Name		Attorney Docket Number	92.1004
Application Number	09/869,686																
Filing Date	7/3/2001																
First Named Inventor	Geoff Downton																
Group Art Unit																	
Examiner Name																	
Attorney Docket Number	92.1004																
Sheet	6	of	14														

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		4,905,774		Wittrisch	03/06/1990	
		4,908,804	*	Rorden	03/13/1990	
		4,938,298		Rehm	07/03/1990	
		4,947,944		Coltman et al	08/14/1990	
		4,948,925		Winters et al	08/14/1990	
		4,951,760		Cendre et al	08/28/1990	
		4,995,465		Beck et al	02/26/1991	
		5,000,272		Wiebe et al	03/19/1991	
		5,038,872		Shirley	08/13/1991	
		5,050,692		Beimgabren	09/24/1991	
		5,052,501		Wenzel et al	10/01/1991	
		5,065,825		Bardin et al	11/19/1991	
		5,070,950		Cendre et al	12/10/1991	
		5,099,934		Barr	03/31/1992	
		5,103,919		Warren et al	04/14/1992	
		5,109,935		Hawke	05/05/1992	
		5,113,953		Noble	05/19/1992	
		5,117,927		Askew	06/02/1992	
		5,131,479		Boulet et al	07/21/1992	
		5,139,094		Prevedel et al	08/18/1992	

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Please type a 'plus sign (+) inside this box

PTO/SB/08A (08-00)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>Substitute for form 1449A/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p><i>(use as many sheets as necessary)</i></p> <p>Sheet 7 of 14</p>				<p>Complete if Known</p> <table border="1"> <tr> <td>Application Number</td> <td>09/869,686</td> </tr> <tr> <td>Filing Date</td> <td>7/3/2001</td> </tr> <tr> <td>First Named Inventor</td> <td>Geoff Downton</td> </tr> <tr> <td>Group Art Unit</td> <td></td> </tr> <tr> <td>Examiner Name</td> <td></td> </tr> <tr> <td>Attorney Docket Number</td> <td>92.1004</td> </tr> </table>		Application Number	09/869,686	Filing Date	7/3/2001	First Named Inventor	Geoff Downton	Group Art Unit		Examiner Name		Attorney Docket Number	92.1004
Application Number	09/869,686																
Filing Date	7/3/2001																
First Named Inventor	Geoff Downton																
Group Art Unit																	
Examiner Name																	
Attorney Docket Number	92.1004																

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	5,160,925			Dailey et al	11/03/1992	
	5,163,521			Pustanyk et al	11/17/1992	
	5,181,576			Askew et al	01/26/1993	
	5,186,264			du Chaffaut	02/16/1993	
	5,213,168			Warren et al	05/25/1993	
	5,220,963			Patton	06/22/1993	
	5,224,558			Lee	07/06/1993	
	5,265,682			Russell et al	11/30/1993	
	5,265,687			Gray	11/30/1993	
	5,305,830			Wittrisch	04/26/1994	
	5,305,838			Pauc	04/26/1994	
	5,311,952			Eddison et al	05/17/1994	
	5,311,953			Walker	05/17/1994	
	5,316,093			Morin et al	05/31/1994	
	5,325,714			Lende et al	07/05/1994	
	5,332,048			Underwood et al	07/26/1994	
	5,341,886			Patton	08/30/1994	
	5,343,966			Wenzel et al	09/06/1994	
	5,375,098			Malone et al	12/20/1994	
	5,390,748			Goldman	02/21/1995	

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	
-------------------------------	--	----------------------------	--

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>Substitute for form 1449A/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p><i>(use as many sheets as necessary)</i></p>				<p>Complete if Known</p>	
Sheet	8	of	14	Application Number	09/869,686
				Filing Date	7/3/2001
				First Named Inventor	Geoff Downton
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	92.1004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.*	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code* (if known)			
	5,410,303			Comeau et al	04/25/1995	
	5,421,420			Malone et al	06/06/1995	
	5,467,834			Hughes et al	11/21/1995	
	5,484,029			Eddison	01/16/1996	
	5,507,353			Pavone	04/16/1996	
	5,520,255			Barr et al	05/28/1996	
	5,520,256			Eddison	05/28/1996	
	5,529,133			Eddison	06/25/1996	
	5,553,678			Barr et al	09/10/1996	
	5,553,679			Thorp	09/10/1996	
	5,582,259			Barr	12/10/1996	
	5,594,343			Clark et al	01/14/1997	
	5,602,541			Comeau et al	02/11/1997	
	5,603,385			Colebrook	02/18/1997	
	5,617,926			Eddison et al	04/08/1997	
	5,673,763			Thorp	10/07/1997	
	5,685,379			Barr et al	11/11/1997	
	5,695,015			Barr et al	12/09/1997	
	5,706,905			Barr	01/13/1998	
	5,738,178			Williams et al	04/14/1998	

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered
-------------------------------	--	----------------------------

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	09/869,686
				Filing Date	7/3/2001
				First Named Inventor	Geoff Downton
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	92.1004
(use as many sheets as necessary)					
Sheet	9	of	14		

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
		EP	0 343 800	A2	Flowmole corporation	11/29/1989		
		EP	0 459 008	B1	Eastman Teleco	05/22/1996		
		EP	0 520 733	B1	Camco	06/05/1996		
		EP	0 530 045	B1	Camco	04/23/1997		
		EP	0 594 418	A1	Halliburton	04/27/1994		
		EP	0 677 640	B1	Camco	09/08/1999		
		EP	0 685 623	A2	Camco	12/06/1995		
		EP	0 685 626	B1	Camco	08/16/2000		
		EP	0 728 907	B1	Camco	08/16/2000		
		EP	0 728 908	B1	Camco	08/16/2000		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if applicable. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

+

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
U.S. GOVERNMENT PRINTING OFFICE: 2002 500-132-027 10-0000

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	09/869,686
				Filing Date	7/3/2001
				First Named Inventor	Geoff Downton
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	92.1004
(use as many sheets as necessary)					
Sheet	10	of	14		

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
		EP	0 728 909	B1	Camco	08/16/2000		
		EP	0 728 910	B1	Camco	08/16/2000		
		EP	0 744 526	A1	Baker Hughes	11/27/1996		
		EP	0 762 606	A2	Camco	03/12/1997		
		EP	0 770 760	A1	Camco	05/02/1997		
		EP	0 841 462	A2	Camco	05/13/1998		
		EP	0 874 128	A2	Camco	10/28/1998		
		GB	2 154 485	A	NL Petroleum	09/11/1985		
		GB	2 172 324	A	Cambridge Radiation	09/17/1986		

Examiner Signature		Date Considered
-------------------------------	--	----------------------------

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>Substitute for form 1449A/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p><i>(use as many sheets as necessary)</i></p>				<p>Complete if Known</p>	
<p>Sheet 11 of 14</p>		<p>Application Number</p>	<p>09/869,686</p>		
		<p>Filing Date</p>	<p>7/3/2001</p>		
		<p>First Named Inventor</p>	<p>Geoff Downton</p>		
		<p>Group Art Unit</p>			
		<p>Examiner Name</p>			
		<p>Attorney Docket Number</p>	<p>92.1004</p>		

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Office ³	Number ⁴			
		GB	2 172 325	A Cambridge Radiation	09/17/1986	
		GB	2 177 738	A Cambridge Radiation	01/28/1987	
		GB	2 183 272	A Amoco Corp	06/03/1987	
		GB	2 183 694	A NL Petroleum	06/10/1987	
		GB	2 246 151	A Camco	01/22/1992	
		GB	2 257 182	A Camco	01/06/1993	
		GB	2 259 316	A Camco	03/10/1993	
		GB	2,285,651	A Camco	07/19/1995	
		GB	2 289 907	A Camco	12/06/1995	
		GB	2 289 908	A Camco	12/06/1995	

Examiner Signature		Date Considered
-------------------------------	--	----------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>Substitute for form 1449A/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p><i>(use as many sheets as necessary)</i></p>				<p>Complete if Known</p>	
Sheet	12	of	14	Application Number	09/869,686
				Filing Date	7/3/2001
				First Named Inventor	Geoff Downton
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	92.1004

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
		GB	2 289 909	A	Camco	12/06/1995		
		GB	2 290 097	A	Camco	12/13/1995		
		GB	2 290 356	A	Camco	12/20/1995		
		GB	2 298 215	A	Camco	08/28/1996		
		GB	2 298 216	A	Camco	08/28/1996		
		GB	2 298 217	A	Camco	08/28/1996		
		GB	2 298 218	A	Camco	08/28/1996		
		GB	2 301 386	A	Baker Hughes	12/04/1996		
		GB	2 304 756	A	Camco	03/26/1997		
		GB	2 306 529	A	Camco	07/05/1997		

Examiner Signature		Date Considered
-----------------------	--	--------------------

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box.

4

PTO/SB/08A (08-00)

I Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	09/869,686
				Filing Date	7/3/2001
				First Named Inventor	Geoff Downton
				Group Art Unit	
				Examiner Name	
Sheet	13	of	14	Attorney Docket Number	92.1004

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
		GB	2 312 905	A	Camco	11/12/1997		
		GB	2 322 651	A	Camco	09/02/1998		
		GB	2 325 016	A	Camco	11/11/1998		
		GB	2 328 466	A	Dresser	02/24/1999		
		GB	2 335 450	A	Baker Hughes	09/22/1999		
		GB	2 336 171	A	Dresser	10/13/1999		
		GB	2 339 222	A	Anderson	01/19/2000		
		GB	2 339 223	A	Anderson	01/19/2000		
		GB	2 340 153	A	Institut Francais	02/16/2000		
		GB	2 342 935	A	Pilot Drilling	04/26/2000		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	09/869,686
				Filing Date	7/3/2001
				First Named Inventor	Geoff Downton
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	92.1004
Sheet	14	of	14		
(use as many sheets as necessary)					

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.